

12 Chapter 12 Test, Form 1

SCORE _____

Write the letter for the correct answer in the blank at the right of each question.

~~1.~~ Which of these is part of an orthogonal drawing?

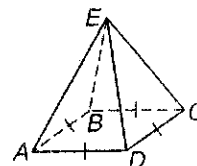
- A. a perspective view
B. a corner view
C. a two-dimensional top view
D. a three-dimensional view

~~1.~~ _____

For Questions 2–4, use the figure.

2. Identify this solid figure.

- A. square pyramid
B. square prism
C. triangular pyramid
D. triangular prism



2. _____

3. Name the base.

- A. $\triangle ABE$
B. $\square ABCD$
C. $\triangle CDE$
D. E

3. _____

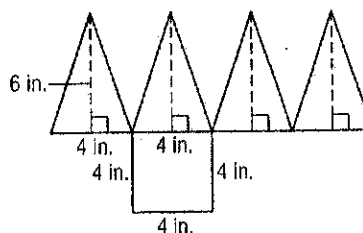
4. How many edges does this figure have?

- A. 3
B. 4
C. 6
D. 8

4. _____

~~5.~~ This net could be folded into a ____?

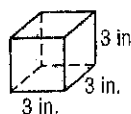
- A. tetrahedron
B. square pyramid
C. square prism
D. triangular prism



~~5.~~ _____

6. Find the surface area of this solid.

- A. 9 in^2
B. 27 in^2
C. 36 in^2
D. 54 in^2



6. _____

7. The areas of how many faces of a rectangular prism would be included in the lateral area?

- A. 2
B. 4
C. 6
D. 8

7. _____

8. Find the surface area of a rectangular prism with a length of 8 inches, a width of 5 inches, and a height of 2 inches.

- A. 15 in^2
B. 66 in^2
C. 80 in^2
D. 132 in^2

8. _____

9. The area of each face of a cube is 60 square centimeters. Find the surface area of the cube.

- A. 120 cm^2
B. 240 cm^2
C. 360 cm^2
D. 3600 cm^2

9. _____

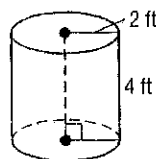
10. The lateral area of a right cylinder with a radius of 10 feet is 320π square feet. Find the surface area of the cylinder.

- A. $220\pi \text{ ft}^2$
B. $360\pi \text{ ft}^2$
C. $420\pi \text{ ft}^2$
D. $520\pi \text{ ft}^2$

10. _____

12 Chapter 12 Test, Form 1 (continued)

For Questions 11 and 12, use the figure.



11. Find the lateral area to the nearest tenth.

- A. 75.4 ft^2 B. 62.8 ft^2
C. 50.3 ft^2 D. 25.1 ft^2

11. _____

12. Find the surface area to the nearest tenth.

- A. 75.4 ft^2 B. 62.8 ft^2 C. 50.3 ft^2 D. 25.1 ft^2

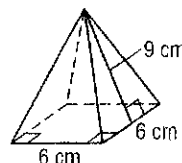
12. _____

13. The lateral area of a regular pyramid is 300 square units. The perimeter of its base is 100 units. Find the slant height of the pyramid.

- A. 3 units B. 6 units C. 12 units D. 30 units

13. _____

For Questions 14 and 15, use the figure.



14. Find the lateral area.

- A. 108 cm^2 B. 144 cm^2
C. 162 cm^2 D. 324 cm^2

14. _____

15. Find the surface area.

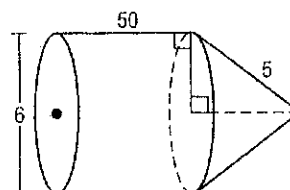
- A. 108 cm^2 B. 144 cm^2 C. 162 cm^2 D. 324 cm^2

15. _____

16. Find the surface area to the nearest tenth.

- A. 546.6 units^2 B. 989.6 units^2
C. 1017.9 units^2 D. 1046.2 units^2

16. _____



17. The radius of a right circular cone is 6 inches and the height is 8 inches. Find the slant height.

- A. 2 in. B. 4 in. C. 10 in. D. 14 in.

17. _____

18. A cone has a radius 17 inches long and slant height 20 inches long. Find the surface area to the nearest tenth.

- A. $18,158.4 \text{ in}^2$ B. 1976.1 in^2 C. 1068.1 in^2 D. 340 in^2

18. _____

~~19.~~ Which could be the intersection of a sphere and a plane?

- A. line B. square C. oval D. point

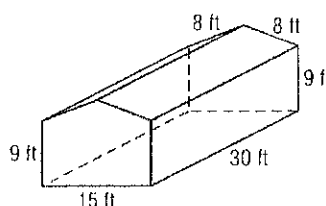
~~19.~~ _____

20. A sphere has a diameter 42 centimeters long. Find the surface area to the nearest tenth.

- A. 5541.8 cm^2 B. 2770.9 cm^2 C. 2167.1 cm^2 D. 527.8 cm^2

20. _____

Bonus Find the amount of glass needed to cover the sides of the greenhouse shown. The bottom, front, and back are not glass.



B: _____